Paper No. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte RANDAL M. HILL and
ZUCHEN LIN

Appeal No. 2002-0433
Application No. 09/575,258

ON BRIEF

Before WINTERS, WILLIAM F. SMITH, and GREEN, Administrative Patent Judges.

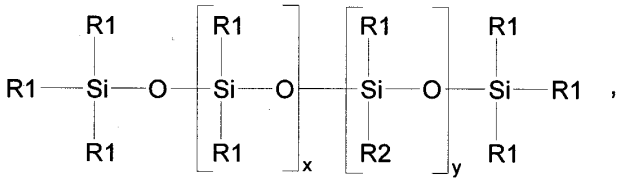
WINTERS, Administrative Patent Judge.

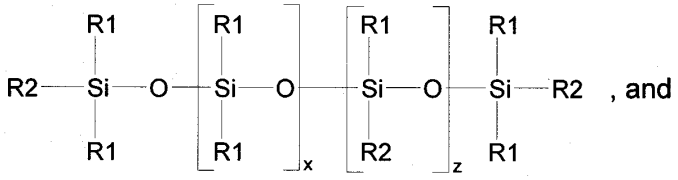
DECISION ON APPEAL

This appeal was taken from the examiner's decision rejecting claims 1 through 6, which are all of the claims pending in the application.

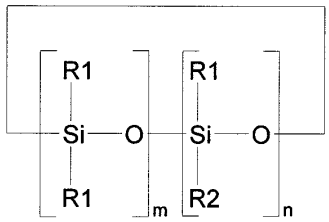
Claim 1, which is illustrative of the subject matter on appeal, reads as follows:

1. A water-in-oil microemulsion comprising (i) 0.1 to 9 percent by weight of water; (ii) greater than 80 percent by weight of a cyclic alkyl siloxane oil having the formula $(R_2SiO)_p$ or a linear alkyl siloxane oil having the formula $R_3SiO(R_2SiO)_qSiR_3$ in which R is an alkyl group containing 1-6 carbon atoms, p is 3-6, and q is 0-5; and (iii) 3 to 10 percent by weight of a silicone polyether having a formula selected from the group consisting of





, and



where R1 represents an alkyl group containing 1-6 carbon atoms; R2 represents the radical $-(CH_2)_aO(C_2H_4O)_b(C_3H_6O)_cR3$; x has a value of 0-3; y has a value of 1-3; z has a value of 0-2; m has a value of 3-5; n is one; a has a value of 0-6; b has a value of 2-6; c has a value of 0-3; and R3 is hydrogen, a methyl radical, or an acyl radical; the water-in-oil microemulsion containing domains of oil or water having an average diameter of less than 100 nanometer (0.1 micron/1,000 angstrom Å).

The references relied on by the examiner are:

Hill	5,707,613	Jan. 13, 1998
Lin et al. (Lin)	5,948,855	Sep. 7, 1999
Glover	6,017,546	Jan. 25, 2000

Claims 1 through 6 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Hill, Lin, and Glover.

Our deliberations in this matter have included evaluation and review of the following materials: (1) the instant specification, including all of the claims on appeal; (2) applicants' Appeal Brief (Paper No. 10); (3) the Examiner's Answer (Paper No. 11); and (4) the above-cited prior art references.

On consideration of the record, including the above-listed materials, we reverse the examiner's rejection under 35 U.S.C. § 103(a).

Discussion

We agree with the examiner's finding that Hill constitutes the closest prior art. Hill discloses a clear silicone microemulsion comprising (a) water; (b) a volatile cyclic methyl siloxane oil or a volatile linear methyl siloxane oil; and (c) a short-chain or low molecular weight silicone polyether. The silicone polyethers disclosed by Hill have essentially the same structural formula as the silicone polyethers recited in claim 1 before us. Compare Hill, column 10, lines 7 through 32 with claim 1, component (iii).

The principal difference between the microemulsion disclosed by Hill and applicants' claimed microemulsion resides in the percentages of components; and that difference is acknowledged by the examiner (Paper No. 11, page 4, second complete

paragraph). As pointed out by applicants, and not disputed by the examiner, the claimed water-in-oil microemulsion contains 0.1 to 9% by weight of water compared with 20 to 60% by weight of water in the microemulsion disclosed by Hill. See the Appeal Brief, page 3, last paragraph. That is, applicants' upper limit on the amount of water (9% by weight) is well below Hill's lower limit (20% by weight) and that fact is not disputed on the record. By the same token, the claimed water-in-oil microemulsion contains greater than 80% by weight of siloxane oil compared with 40 to 80% by weight of oil in the microemulsion disclosed by Hill.

We have no doubt that Hill's microemulsion could be modified in such manner to arrive at the claimed water-in-oil microemulsion, including the percentages of components recited in claim 1. This is clear from a review of applicants' specification. However, the mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification. In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). That is not the case here.

We disagree that there is adequate reason, suggestion, or motivation stemming from Glover or Lin which would have led a person having ordinary skill to modify the relative percentages of components in Hill's microemulsion in the manner proposed by the examiner (Paper No. 11, page 4, second complete paragraph). Simply stated, the examiner has not established an adequate nexus between the disclosures of the "primary" reference (Hill) and the "secondary" references (Glover or Lin); and has not set forth an adequate line of reasoning which would support this rejection.

Again, applicants' upper limit on the amount of water in the claimed microemulsion (9% by weight) is well below Hill's lower limit (20% by weight). The examiner has not provided an adequate explanation why a person having ordinary skill would have significantly reduced the amount of water in Hill's microemulsion, per the disclosures of Glover or Lin, to arrive at the instantly claimed water-in-oil microemulsion. In our judgment, the evidentiary record relied on by the examiner does not support a conclusion of obviousness of a water-in-oil microemulsion containing the percentages of components recited by applicants in the appealed claims.

The examiner's decision is reversed.

REVERSED

Sherman D. Winters Administrative Patent Judge	)
William F. Smith Administrative Patent Judge	) BOARD OF PATENT) APPEALS AND) INTERFERENCES
Lora M. Green Administrative Patent Judge	)

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